



# EXO™

## Explosion Proof Camera

### High Definition Camera Systems For Harsh Environments

The EXO Explosion Proof High Definition (HD) Network Camera Systems, with H.264 High Profile and ONVIF support, are the professional's choice for capturing brilliant, 1080P full HD video in extreme applications. The EXO Series is built tough to withstand power surges, heavy impacts, and corrosion. EXO Pan-Tilt-Zoom (PTZ) Camera Systems are available in six models: EXO Pressurized, EXO Corrosion Resistant, EXO Bullet Resistant, EXO Vandal Resistant, EXO Surface Mount and EXO Explosion Proof.

#### Available Features

- HD 1080P models
- 20x & 30x optical zoom models
- 30x zoom models have image stabilization
- Day / Night with auto IR-cut filter, Wide Dynamic Range
- ONVIF, PSIA (Milestone, ONSSI), and GENETEC API, supported
- Meets NEMA 4X standards
- Micro-SD / SDHC / SDXC / support
- H.264 High Profile, MJPEG compression
- Video motion detection
- Audio synchronization
- Temperature range: -20°F to 122°F (-29°C to 50°C)
- Proprietary surge protection (Ethernet, power and alarm / data wires)

**MADE IN  
USA**  
BUY AMERICAN COMPANY • COUNTRY OF ORIGIN: U.S.A.

**EXO**  
SERIES



# EXO™ Explosion Proof Camera



## EXO Explosion Proof

The EXPD7C1-3 is designed for environments where explosion hazards arise from flammable gases, vapors, or dust. EXO Explosion Proof cameras isolate the hazard, via purging, with a supply of inert gas. UL approved for hazardous locations (Class I/Division 2, Class 2/Division 2). The purged and pressurized enclosures are certified to UL NFPA 496 for electrical equipment, and to UL NFPA 60950-1 for information technology equipment.

Camera Specifications		
	20x	30x
Image Sensor:	1/2.8-type Exmor CMOS	
Lens / Digital Zoom:	20x Optical Zoom, f=4.7mm (wide) to 94.0mm (tele); 12x (240x with optical zoom)	30x Optical Zoom, f=4.6mm (wide) to 138.0mm (tele); 12x (360x with optical zoom)
Minimum Illumination:	Color: 1.2Lux (F1.6 50IRE); B&W: 0.3Lux (F1.6 50IRE)	
Shutter Speed:	Automatic or user selectable	
Selectable Shutter Speeds:	1/1 to 1/10,000s, 22 steps	
Pan/Tilt/Zoom:	Pan: 360° continuous rotation; Tilt: 0° to 95° above horizon; Speed: 0.5°-80°/sec manual operation, 120°/sec preset	
Horizontal Viewing Angle:	55.4° (wide) to 2.9° (tele end)	59.5° (wide) to 2.1° (tele end)
Image Stabilization:	No	Yes
Maximum Lens Aperture:	Minimum of f/1.6 (wide) to f/3.5 (tele)	Minimum of f/1.6 (wide) to f/4.7 (tele)

Video Specifications	
Video Compression:	H.264 High, Main and Baseline profiles Motion JPEG
Resolutions:	H.264: 1920x1080, 1280x720, 640x360, H.264 or Motion JPEG: 640x360, 4CIF, VGA, 2CIF, CIF
Frame Rate:	Up to HD 1080p @ 30 fps/720p @ 60fps
Video Streaming:	User selectable (1) H.264 and (1) H.264 or MJPEG
Image Settings:	Wide dynamic range (WDR), manual shutter time, compression, color, brightness, sharpness, white balance, exposure control, exposure zones, backlight compensation, fine tuning of behavior at low light, rotation, text and image overlay, privacy masks, image freeze on PTZ
Data Rate:	Variable Bit Rate, Motion adaptive variable bit rate and Constant Bit Rate modes. 64 kbps – 6 Mbps per channel (requires less than 1 Mbps @ 4CIF/30fps)

Electrical Specifications	
Alarm Inputs / Output:	1 Alarm input / 1 Alarm output
Power Input / Input Voltage:	110/120Vac, 15A
Surge Protection:	Proprietary two (2) stage surge protection (3 year warranty)
Audio Streaming:	Two-way: Uncompressed PCM High-fidelity AAC-LC G.711
Audio Input / Output:	Single analog audio input; Single analog audio output (External Microphone and Speaker required)
Connectors:	RJ45 for 10BASE-T/100BASE-TX, Phoenix style connectors for AC/DC power, 4 configurable alarm inputs / outputs, mic in, line mono input, line mono output to active speaker

System Integration Specifications	
Application Programming Interface:	GENETEC API, PSIA (Milestone, ONSSI), ONVIF
Event Triggers:	Video motion detection, memory card full
Event Actions:	Video recording to edge storage

## Regulatory and Certifications



ONVIF



UL Listed



WEEE

## Models:

### EXPD7C1-2

20x optical zoom, Purge system, Class I, Division 2, Groups A,B,C & D

### EXPD7C2-2

20x optical zoom, Purge system, Class II, Division 2, Groups E,F & G

### EXPD7C1-3

30x optical zoom, Purge system, Class I, Division 2, Groups A,B,C & D

### EXPD7C2-3

30x optical zoom, Purge system, Class II, Division 2, Groups E,F & G

Protocols Specifications	
Networking:	IPv4/v6, UDP, TCP, IGMP, ICMP, ARP, DHCP, DNS
Streaming:	RTP, HTTP
Management:	RTSP, HTTP, HTTPS, Bonjour, NTP, Telnet, SNMP
Security:	Password protection, HTTPS encryption, digest authentication, user access log
System Administration:	Web GUI interface (HTTP or HTTPS)
Access Control:	SSL, Basic and Digest Authentication
Audio / Video Buffering:	Recorded ASF files to micro-SD medium
Long Term System Configuration Memory:	System configuration stored on internal flash
Software Update:	Fault-tolerant, remote accessible
Alarm Events:	Triggered by external input or internal event monitoring
Network:	Standard 10/100 Base-T Ethernet port
Edge Recording:	One (1) micro-SD / SDHC / SDXC interface (2-32GB Sold Separately, class 6 or above micro SD card)

Environmental Specifications (Enclosure)	
Impact Rating:	IK10
Maximum Windload:	150mph (240kph)
Operating Temperature:	-20°F to 122°F (-29°C to 50°C)
UL Certifications:	UL NFPA 496 Purged and Pressurized; UL NFPA 60950-1
UL Hazard Classifications	
Class I, Division 2, Groups A, B, C & D	Flammable gases, vapors or liquids: Ethylene, Propane, Ace Tylen, Hydrogen
Class II, Division 2, Groups E, F, & G	Flammable Metal dust, Carbonaceous dust, Grain dust

Purge System Specifications	
Supply Pressure Range:	5 - 120 psi
Supply Requirements:	Clean air or inert gas
Safe Pressure (CI/CII):	0.25/1.0 psi
Safe Pressure Flow Rate:	0.1 - 3.5 SCFH
Switch Setting (CI/CII):	0.15 / 0.5 + 0.02
Switch Conduit Port Size:	½" FPT
Switch Contact Rating:	120Vac, 15A

General Specifications	
Housing Style:	High-impact engineered plastic, UV protected with UL flame rating of UL94-5vA, Aluminum sunshield
Dome:	OptiClear, special Nylon blend
Mounting Style:	Wall mount
Mounting Pattern:	Wall (4) 2"x8" bolt pattern, .38" dia.
Net Weight:	25 lb (11.4 Kg)
Dimensions (h*w*d)	Camera: 14.4" x 11.2" x 13.5" (367 x 285 x 343mm)
	Purge box: 16.6" x 16" x 6.7" (422 x 407 x 171mm)
Warranty:	3 years, including surge protection

# MOOG

Sensor and Surveillance Systems

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